

REMARKS

Claims 111, 119, 120 are pending in the application. Claims 1-110 and 112-118 have been canceled.

Claims 111-116 and 118-120 stand rejected under 35 USC 102 as being unpatentable over US Published Patent Application 2002/0173769 (“Gray”) in view of US Published Patent Application 2003/0125679 (“Kubota”) and US Patent No. 6,743,749 (Morikawa).

In the May 2009 RCE, Applicants respectfully submitted that the problem solved by the present invention relates to attaining sufficient photocatalytic activation of the indwelling portion of the catheter. Because Kubota teaches the use of UV light with photocatalytic catheters, and UV light has a very small dermal penetration depth (<1 mm), merely irradiating the titania-laden catheter from above the skin surface would not photoactivate the entire length of the tube, but rather substantially only that portion thereof extending out of the skin surface.

Kubota appears to recognize this problem and therefore the need to deliver light to the distal portion of the catheter, but teaches a different solution thereto. In particular, Kubota teaches to provide light guiding materials within the body of the catheter. See paragraph [0066] of Kubota. Therefore, Kubota teaches away from the present invention.

Morikawa does not cure the deficiencies of Kubota. Morikawa only teaches that nitrogen-doped titania is activated by visible light. Morikawa does not further teach that this quality allows for a different solution to the light penetration problem than that provided by Kubota, namely that the visible light has a sufficiently long penetration depth in skin to photoactivate the indwelling portion of the catheter and thereby obviate the need for incorporating light guiding materials into the catheter, as per Kubota.

Because neither Kubota nor Morikawa recognize the advantage of nitrogen-doping the titania present on the indwelling portion of the catheter, the present rejection should be withdrawn.

In the May 28, 2009 Office Action, the examiner found the above reasoning unpersuasive because i) the features upon which applicant relies (i.e., photoactivating the entire length of the tube) are not recited in the rejected claim(s), and ii) Morikawa is relied upon only for its teaching of nitrogen doped titanium dioxide.

In this Response, Applicants respectfully submit that Applicants' Remarks clearly emphasized "the advantage of nitrogen- doping the titania present on the indwelling portion of the catheter". Indeed, Applicants' Remarks discussed the "indwelling" portion of the catheter three separate times and the "distal" portion of the catheter once. Therefore, the feature upon which the Applicant relied (nitrogen-doped titania present on the indwelling portion of the catheter) is indeed present in the claimed invention.

In addition, Applicant does not dispute that Morikawa is relied upon only for its teaching of nitrogen-doped titanium dioxide. However, the Examiner's reasoning does not provide a reason as to why a skilled artisan would choose to select Morikawa's nitrogen-doped titanium dioxide over any other titanium dioxide as a way of solving the light penetration problem discussed above. This is particularly true in light of Kubota's teaching to provide light guiding materials within the body of the catheter as a way of solving the light penetration problem, which teaching teaches away from the present invention.

Therefore, it appears that Applicants' claims served as a roadmap for picking and choosing isolated elements of the invention in disparate prior art documents, and combining them (without providing any reasoning for doing so) in a way to arrive at the present invention. The patent law is clear that such hindsight reconstruction is not allowed.

For these reasons, the present rejection should be withdrawn.

In addition, please provide any additional extensions of time which may be necessary and charge any fees which may be due to Deposit Account No. 10-0750, but do not include any payment of issue fees.

Should there be any remaining or further questions, the Examiner is requested to place contact the undersigned directly.

Respectfully submitted,

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